REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1-23 are pending in the application. Claims 1, 8-11, and 23 have been amended. No claims have been canceled. No new matter has been added.

Applicant has amended the claims, particularly to overcome the Examiner's rejection of indefiniteness under 35 U.S.C. §112. The Examiner initially rejected claims 1-23 under 35 U.S.C. §112, second paragraph. Accordingly, Applicant has amended claims 1 and 22-23 to particularly point out and distinctly claim, in full, clear, concise and exact terms, the subject matter which Applicant regards as his invention. The Examiner rejected the claims that use the terms of "approximately" and "more likely". Applicant respectfully submits that these terms are widely used by those with ordinary skill in the art.

> "An applicant is entitled to be his or her own lexicographer, and in many instances will provide an explicit definition for certain terms used in the claims. Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999).

Applicant submits that claims 1-23 are well disclosed and supported throughout the specification and the Examiner must use the perspective of one of ordinary skill in the art when interpreting the claims. Applicant submits that one with ordinary skill in the art would consider the use of "approximately" and "more likely" to be definite, particularly, for example, in the technology of probability. Therefore, in view of the foregoing amendments and remarks, the Examiner's rejections have been overcome.

In the Office Action, Examiner rejected claims 1-23 under 35 U.S.C. 101 as claims 1 and 22-23 are directed to non-statutory subject matter. Applicant respectfully traverses the rejection of claims 1-23.

"To be statutory, a claimed computer-related process must either: (1) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan, or (2) be limited by the language in the claim to a practical application within the technological arts." (MPEP ¶ 2106).

Applicant respectfully submits that the rejected claims are fully disclosed in the specification and result in a physical transformation outside the computer which is practical in the technological arts. Specifically, independent claim 1 includes limitations of selecting at least one candidates entity, wherein the selection is more likely for a candidate entity to be distinctive than others with respect to at least one characteristic of a preexisting art, and creating at least one new candidate entity by creating a variation in the at least one candidate entity to satisfy the design requirement while avoiding at least one characteristic of the preexisting art.

The independent claim 1 defines distinctive operations to generate a new entity that is distinctive from a preexisting art (e.g., a preexisting technology). The method involves physical manipulation of a data structure and an architecture of a physical object used to solve the problem. In addition, the independent claim 1 further defines that the selection is more likely (e.g., higher probability) for a candidate entity to satisfy a design requirement and to avoid at least one characteristic of a preexisting art than another entity, which lead to a new, useful, and tangible result.

In the Office Action, the Examiner states:

"Specifically, the claims focus on a series of steps to be performed on a computer, but the ideas are disclosed abstractly from any particular practical application. In claims 1, 22, and 23, the mere process of creating an entity that 'approximately satisfies' a design requirement relative to 'a preexisting art' by means of selecting an entity 'more likely' to satisfy a requirement, is an unclear and indefinite method of creating a new entity."

(7/17/2003 Office Action, page 3, emphasis added).

Applicant respectfully disagrees. As discussed above, those terms mentioned by the Examiner are definite by those with ordinary skill in the art. In addition, claims 1 and 22-23 include definite limitations that particularly point out, in full, clear, concise and exact terms, the

subject matter which Applicant regards as his invention. Specifically, independent claim 1 recites as follows:

> 1. An iterative computer-implemented process for creating an entity that approximately satisfies a design requirement that at least one characteristic is not in a preexisting art, the process invoking iterations, each iteration comprising:
>
> selecting at least one candidate entity, wherein selection is more likely for a first candidate entity to satisfy a design requirement than a second candidate entity and for the first candidate entity to avoid at least one characteristic of a preexisting art than the second candidate entity; and
>
> creating at least one new candidate entity by creating a variation in the at least one candidate entity that satisfies the design requirement and avoids at least one characteristic of the preexisting art.

(emphasis added).

Applicant submits that independent claim 1 as amended clearly sets forth definite operations, as a whole, to achieve a new and useful, concrete, and tangible result. Applicant submits that the limitations claimed in independent claim 1 are absent from the cited references, individually or in combination.

In the Office Action, the Examiner further states:

> "The claims, as disclosed, point to the general implementation of genetic algorithms and elements of the evolutionary process, but fail to present a design method which employs elements of the genetic process to further limit the intended application to a specific practical application."

(7/17/2003 Office Action, pages 4-5).

Applicant respectfully disagrees. Independent claim 1 includes definite operations that create a new entity that satisfies a design requirement while avoiding at least one characteristic of a preexisting art. One with ordinary skill in the art would consider these limitations would achieve a new and useful, concrete, and tangible result, such as, for example, designing a new structure that satisfies a design requirement while avoiding certain characteristics of a preexisting structure (e.g., without infringing some aspects of a preexisting art).

In the Office Action, the Examiner further states:

"Applicant discloses no 'certain substances' that have been transformed or reduced' in that applicant's claims disclose no specific computer-readable medium, no manipulation of specific data representing physical objects or activities (pre-computer activity), nor do they disclose any specific independent physical acts being performed by the invention (post computer activity). The claims merely manipulate abstract ideas in general without limitation to a practical application where 'certain substances' are transformed or reduced."

(7/17/2003 Office Action, page 5).

Applicant respectfully disagrees. As discussed above, independent claim 1 discloses distinctive operations to produce new, useful, and tangible results. In reviewing the claims, the complete specification should be reviewed, including the detailed description of the invention, any specific embodiments that have been disclosed, the claims and any specific, substantial, and credible utilities that have been asserted for the invention (see, MPEP ¶2106). Applicant submits that the independent claim 1 relates to a computer implemented process that achieves new and useful, concrete, and tangible results.

As discussed above, independent claim 1 defines distinctive operations to generate a new entity to <u>satisfy a design requirement and to avoid at least one characteristic of a preexisting art</u>. The process involves physical manipulation of data structure and architecture of a physical object used to solve the problem using the computer's software and hardware resources. <u>If independent claim 1 could not satisfy the requirements of 35 U.S.C. §101, none of the computer implemented process claims in U.S. would satisfy the requirements of 35 U.S.C. §101</u>. Therefore, for the reasons discussed above, independent claim 1 satisfies the statutory requirements of 35 U.S.C. §101.

Similarly, independent claims 22 and 23 include limitations similar to those in claim 1. Thus, for the reasons similar to those discussed above, claims 22 and 23 satisfy the requirements of 35 U.S.C. §101. The rest of the claims depend from one of the above independent claims. Therefore, for the reasons discussed above, these claims satisfy the requirements of 35 U.S.C. §101. Withdrawal of the rejections is respectfully submitted.

In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 1ⁿ/1ⁿ; 2003

Michael J. Mallie
Reg. No. 36,591

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1026
(408) 720-8300